

POSITIONS AND AREAS OF SUN SPOTS

[Communicated by Capt. J. F. Hellweg, U.S. Navy, Superintendent U.S. Naval Observatory. Data furnished by the U.S. Naval Observatory in cooperation with Harvard and Mount Wilson Observatories. Difference in longitude is measured from the central meridian, positive west. North latitude is positive. Areas are corrected for foreshortening and are expressed in millionths of the sun's visible hemisphere. The total area for each day includes spots and groups]

Date	Eastern stand- ard time	Heliographic			Area		Total area for each day	Observatory
		Diff. in longitude	Longitude	Latitude	Spot	Group		
1934	<i>h. m.</i>	<i>°</i>	<i>°</i>	<i>°</i>				
Mar. 1.....	11 0	No spots						U.S. Naval.
Mar. 2.....	11 15	No spots						Mt. Wilson.
Mar. 3.....	11 20	No spots						U.S. Naval.
Mar. 4.....	11 45	-12.0	180.4	+0.5	3		3	Mt. Wilson.
Mar. 5.....	11 34	No spots						U.S. Naval.
Mar. 6.....	11 18	No spots						Do.
Mar. 7.....	12 50	-64.0	88.4	-27.0	2			Mt. Wilson.
		-28.0	126.4	-3.0		21	23	
Mar. 8.....	13 10	-54.0	84.9	-28.0		4		Do.
		-11.0	127.9	-3.0		37	41	
Mar. 9.....	11 18	-40.0	86.8	-27.5		9		U.S. Naval.
		+2.0	128.8	-3.0		31	40	
Mar. 11.....	12 28	No spots						Do.
Mar. 12.....	11 16	No spots						Do.
Mar. 13.....	11 22	No spots						Do.
Mar. 14.....	11 0	No spots						Mt. Wilson.
Mar. 15.....	11 6	No spots						U.S. Naval.
Mar. 16.....	13 17	No spots						Do.
Mar. 17.....	11 10	No spots						Do.
Mar. 18.....	10 50	No spots						Do.
Mar. 19.....	11 54	No spots						Mt. Wilson.
Mar. 20.....	11 33	No spots						U.S. Naval.
Mar. 21.....	11 20	No spots						Do.
Mar. 22.....	10 58	No spots						Mt. Wilson.
Mar. 24.....	10 56	No spots						Do.
Mar. 25.....	12 9	No spots						U.S. Naval.
Mar. 26.....	10 30	+3.0	266.1	-28.0	6		6	Mt. Wilson.
Mar. 27.....	9 45	No spots						Do.
Mar. 28.....	11 35	No spots						Do.
Mar. 29.....	11 10	No spots						U.S. Naval.
Mar. 30.....	11 8	No spots						Do.
Mar. 31.....	11 0	No spots						Mt. Wilson.
Mean daily area for March.							4	

PROVISIONAL SUN-SPOT RELATIVE NUMBERS FOR MARCH 1934

(Dependent alone on observations at Zurich and its station at Arosa)

[Data furnished through the courtesy of Prof. W. Brunner, Eidgenössische Sternwarte, Zurich, Switzerland]

March 1934	Relative numbers	March 1934	Relative numbers	March 1934	Relative numbers
1.....		11.....	15	21.....	0
2.....	0	12.....	7	22.....	0
3.....	0	13.....	0	23.....	0
4.....	7	14.....	0	24.....	0
5.....	0	15.....	0	25.....	7
6.....	<i>Ec</i> 7	16.....	0	26.....	7
7.....	9	17.....	0	27.....	0
8.....	19	18.....	7	28.....	0
9.....	<i>a</i> 22	19.....	0	29.....	7
10.....	12	20.....	0	30.....	7
				31.....	0

Mean: 30 days—4.4.

a = Passage of an average-sized group through the central meridian.
c = New formation of a center of activity: *E*, on the eastern part of the sun's disk; *W*, on the western part; *M*, in the central zone.

AEROLOGICAL OBSERVATIONS

[Aerological Division, D. M. Little, in charge]

By L. T. SAMUELS

Free-air temperatures during March averaged below normal at all levels at Omaha and Pembina; at the upper levels at Pensacola and San Diego; and lower levels at Cleveland and Washington (table 1). Elsewhere the temperature departures were positive. Relative humidity departures for the month were mostly negative, the largest positive departures occurring at Pensacola.

Free-air resultant wind directions were practically normal over the entire country with some excess of southerly components along the middle Pacific coast (table 2). Resultant velocities were mostly below normal over the southern half of the country and above normal over the northern half.